

**STATE WATER RESOURCES CONTROL BOARD
BOARD MEETING SESSION--DIVISION OF WATER QUALITY
APRIL 3, 2007**

ITEM 5

SUBJECT

CONSIDERATION OF A RESOLUTION APPROVING AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE SANTA ANA REGION (BASIN PLAN) TO ESTABLISH A NUTRIENT TOTAL MAXIMUM DAILY LOAD (TMDL) FOR DRY HYDROLOGICAL CONDITIONS FOR BIG BEAR LAKE

DISCUSSION

The Basin Plan amendment modifies the regulatory provisions of the Basin Plan by establishing a nutrient TMDL for dry hydrological conditions for Big Bear Lake. The proliferation of two aquatic plants, primarily Eurasian watermilfoil (*Myriophyllum spicatum* L.) and Coontail (*Ceratophyllum demersum* L.), severely affects the beneficial uses of Big Bear Lake, including water contact recreation, non-contact water recreation, warm and cold freshwater habitat, and wildlife habitat. The nutrient addressed by the TMDL is phosphorus. There is evidence that nitrogen is a limiting nutrient under certain conditions; however, given the data and analytical limitations, no nitrogen targets are specified. Nitrogen monitoring is required as part of this TMDL. The data will be used to specify nitrogen targets in the future, as warranted.

The TMDL allocation for phosphorus loading to Big Bear Lake is for dry hydrological conditions only. There is insufficient data for wet or average hydrologic conditions available to allow calibration of the lake water quality model used to calculate a TMDL for wet hydrological conditions. A phased TMDL approach is proposed to allow for requisite study and refinement of the TMDL, including consideration of wet and average hydrological conditions. It is proposed that compliance with the final numeric targets identified in the TMDL be achieved as soon as possible but no later than 2015. The TMDL addresses impairment due to nutrients in Big Bear Lake in a prioritized, phased approach. Compliance with the numeric objectives to protect cold and warm freshwater habitat; water contact and non-contact recreation; wildlife habitat; and rare, threatened, or endangered species are to be achieved no later than December 31, 2015 for dry hydrological conditions.

Numeric targets are established as shown in Attachment A, Table 5-9a-c; both "causal and response" interim and final numeric targets are specified for Big Bear Lake. The causal target is for phosphorus, the principal nutrient responsible for plant growth. Phosphorus is the primary limiting nutrient in Big Bear Lake, and nitrogen can be a limiting nutrient under certain conditions. Response targets include macrophyte coverage, percentage of nuisance aquatic vascular plant species, and chlorophyll-a concentrations. These response targets are more direct indicators of impairment and are specified to assess and track water quality improvements in Big Bear Lake. These numeric targets are based on the narrative objectives for algae within the Basin Plan.

Waste load allocations are assigned for urban discharges; and load allocations are assigned for forest and resort discharges and discharges from atmospheric deposition, macrophytes, and internal sediment. Internal sediment is considered sediment within Big Bear Lake, as opposed to external sediment loads from the watershed. A “weight of evidence” approach will be used to assess compliance with the TMDL, which means that data pertaining to all the numeric targets will be evaluated and non-compliance with one target will not automatically imply non-compliance with the TMDL.

The Santa Ana Regional Water Quality Control Board (Santa Ana Water Board) has committed to reevaluating and revising the TMDL, if appropriate, based on monitoring results and relevant studies. These studies include source evaluation and characterization; development of a Big Bear Lake management plan; watershed-wide and lake-wide water quality monitoring; development/revision of a nutrient watershed and lake model; and development of average/wet hydrological conditions wasteload and load allocations. Revision of the TMDL, including compliance dates for all other hydrological conditions, would be considered through a Basin Plan amendment process. Upon completion and consideration of the studies and any appropriate Basin Plan amendment, an implementation plan or plans will be established for achieving the targets.

POLICY ISSUE

Should the State Water Resources Control Board (State Water Board) approve the amendment to the Basin Plan to establish a nutrient TMDL for dry hydrological conditions for Big Bear Lake, as adopted under Santa Ana Water Board Resolution No. R8-2006-0023?

FISCAL IMPACT

Santa Ana Water Board and State Water Board staff work associated with or resulting from this action will be addressed with existing and future budgeted resources.

REGIONAL WATER BOARD IMPACT

Yes, approval of this resolution will amend the Basin Plan.

STAFF RECOMMENDATION

That the State Water Board:

1. Approves the amendment to the Basin Plan adopted under Santa Ana Water Board Resolution No. R8-2006-0023.
2. Authorizes the Executive Director or designee to submit the amendment adopted under Santa Ana Water Board Resolution No. R8-2006-0023 to the Office of Administrative Law for approval of the regulatory provisions and to the U.S. Environmental Protection Agency for approval of the TMDL.

DRAFT

January 16, 2007

STATE WATER RESOURCES CONTROL BOARD RESOLUTION NO. 2007-

APPROVING AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE SANTA ANA REGION (BASIN PLAN) TO ESTABLISH A NUTRIENT TOTAL MAXIMUM DAILY LOAD (TMDL) FOR DRY HYDROLOGICAL CONDITIONS FOR BIG BEAR LAKE

WHEREAS:

1. The Santa Ana Regional Water Quality Control Board (Santa Ana Water Board) adopted a revised Basin Plan on March 11, 1994, which was approved by the State Water Resources Control Board (State Water Board) on July 21, 1994 and by the Office of Administrative Law (OAL) on January 24, 1995.
2. On April 21, 2006, the Santa Ana Water Board adopted Resolution No. R8-2006-0023 ([Attachment](#)) amending the Basin Plan to establish a nutrient TMDL for dry hydrological conditions for Big Bear Lake.
3. The Santa Ana Water Board found that the analysis contained in the TMDL staff report, the California Environmental Quality Act (CEQA) checklist and the response to comments comply with the requirements of the State Water Board's certified regulatory CEQA process, as set forth in the California Code of Regulations, Title 23, section 3775 et seq .
4. The Santa Ana Water Board found that the adoption of the TMDL would have no direct effect on the environment. The implementation of projects that may be conducted to implement the nutrient TMDL are expected to have less than significant impacts or less than significant impacts with application of mitigation measures on the following: air quality; biological resources; hazards and hazardous materials; hydrology and water quality; noise; aesthetic and transportation; and traffic. As projects to implement the TMDL are developed, specific environmental impact and mitigation measures to address those impacts will be subject to thorough and separate evaluation pursuant to CEQA.
5. The Santa Ana Water Board found that, provided appropriate mitigation is implemented, projects designed and conducted to achieve the TMDL are expected to have less than significant impact, either individually or cumulatively, on fish and/or wildlife species.
6. The Santa Ana Water Board found that the Basin Plan amendment will ensure the reasonable protection of the beneficial uses of surface waters within the Region and is consistent with the State Antidegradation Policy (State Water Board Resolution No. 68-16) and federal antidegradation requirements.
7. The State Water Board finds that the Basin Plan amendment is in conformance with Water Code section 13240, which specifies that Regional Water Quality Control Boards may revise Basin Plans, and section 13242, which requires a program of implementation of water quality objectives. The State Water Board also finds that the TMDL as reflected in the Basin Plan amendment is consistent with the requirements of federal Clean Water Act section 303(d).

8. A Basin Plan amendment does not become effective until approved by the State Water Board and until the regulatory provisions are approved by OAL. The TMDL must also be approved by the U.S. Environmental Protection Agency (USEPA).

THEREFORE BE IT RESOLVED THAT:

The State Water Board:

1. Approves the amendment to the Basin Plan adopted under Santa Ana Water Board Resolution No. R3-2006-0023.
2. Authorizes the Executive Director or designee to submit the amendment adopted under Santa Ana Water Board Resolution No. R8-2006-0023 to OAL for approval of the regulatory provisions and to USEPA for approval of the TMDL.

CERTIFICATION

The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on April 3, 2007.

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Clerk to the Board